

**WHAT IS CLAIMED IS:**

1. A system for monitoring and controlling water consumption, comprising:

a sensor for monitoring a water consumption parameter in a water-based system and for generating signals indicative of the operation thereof;

an interface module for receiving signals from the sensor;

a fluid control device operable with the interface module for limiting the water consumption in the water-based system; and

a power panel for receiving one or more of the interface module.

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2. A system as recited in claim 1, comprising a processor residing in the power panel, the processor being in communication with the interface module for interpreting signals from the sensor.

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3. A system as recited in claim 1, wherein the sensor comprises a fluid flow sensor to sense the water flow within a component of the water-based system.

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4. A system as recited in claim 1, wherein the sensor comprises a pressure sensor connected to sense the pressure inside a component of the water-based system to generate an output signal when the sensor pressure exceeds a predetermined threshold.

5. A system as recited in claim 1, wherein the fluid control device comprises a valve in a water supply line of a component of the water-based system.

5 6. A system as recited in claim 1, wherein the interface module controls the fluid control device for disconnecting a water or energy source from the water-based system.

7. A system as recited in claim 1, wherein the processor receives the  
10 signal from the sensor, and in response thereto, communicates with the interface module to close the valve in the water supply line.

8. A system as recited in claim 1, wherein the water-based system is in a residential or commercial structure and includes one or more of a sink, toilet,  
15 dishwasher, washing machine, water heater, swimming pool and sprinkler sub-systems, requiring monitoring and control of the water consumption thereof.

9. A system as recited in claim 1, wherein the processor is on a motherboard and the motherboard includes a communication port enabling  
20 communications via the processor.

10. A system as recited in claim 1, wherein the motherboard includes an information port for establishing a computer network interface.

5 11. A system as recited in claim 10, wherein the interface module is configured by a remote computer via the information port.

12. A system as recited in claim 11, wherein the interface module is operable to configure an Internet website.

10 13. A method for monitoring and controlling water consumption, comprising:

generating signals indicative of a water consumption parameter sensed from a water-based system;

15 receiving the generated signals to monitor the water consumption parameter;

operating a fluid control device for limiting the water consumption in response to the received signal; and

information processing of the received signal providing a communication interface for interpreting signals.

20 14. A method as recited in claim 13, wherein the water-based system resides in a residential or commercial structure and includes one or more of a sink, toilet, dishwasher, washing machine, water heater, swimming pool and sprinkler sub-systems, requiring monitoring and control of the water consumption thereof.

15. A method as recited in claim 13, wherein the water-based system is a tank-less toilet comprising measurement and control of the water metered through the tank-less toilet system.

5 16. A system for monitoring and controlling water consumption, comprising:

at least one sensor for monitoring a water parameter in a water-based system;

10 at least one receiver for receiving signals from the sensor, the signals generated from the sensor being indicative of the operation of the water-based system;

a processor in communication with the at least one sensor and for monitoring and controlling the water consumption; and

15 a fluid control device operable with the processor for limiting the consumption of water in the water-based system.

17. A system as recited in claim 16, wherein the processor is in a housing providing a circuit box for receiving the at least one sensor and receiver, each of the at least one sensor or receiver acting as a circuit breaker of the monitored water-based system to protect from malfunction of the water-based system.

18. A system as recited in claim 16, wherein the processor is connected to a network interface bi-directional data communications device.

19. A system as recited in claim 16, wherein the processor is connected to a multi media interface for interactive video communications, for identifying a location in which the monitored water-based system operates.

5 20. A system as recited in claim 16, and a motherboard for receiving said processor, the motherboard having a connection for electronically communicating with one or more processors on other motherboards.